

Patent Claims

1. A CMP process for a contact hole and/or metal track etching, in which a liner (2) deposited over the whole area on a dielectric (1) after the patterning and a metalization layer deposited over the whole area on the liner (2), said metalization layer preferably being composed of tungsten or copper, are removed in regions by a chemical mechanical polishing process (CMP) which stops on the dielectric (1),  
wherein  
at least in the regions surrounding the patterned portions on the dielectric (1), an auxiliary layer (4) which can easily be removed by the CMP process is fashioned between dielectric (1) and liner (2).
2. The CMP process as claimed in claim 1,  
wherein  
the auxiliary layer (4) has a layer thickness in the range of 20 to 100 nm.
3. The CMP process as claimed in one of the preceding claims,  
wherein  
the auxiliary layer (4) is used at least partly as a hard mask for the patterning - preceding the etching - by dry etching.
4. The CMP process as claimed in one of the preceding claims,  
wherein  
the reaching of the auxiliary layer (4) is detected by an etching stop detection signal during the CMP process.
5. The CMP process as claimed in one of the preceding claims,  
wherein

an additional wet-chemical cleaning step is carried out at the end of the etching.

6. The CMP process as claimed in one of the preceding  
5 claims,  
wherein  
the auxiliary layer (4) is composed of  
diamond-like carbon, carbon polymers or of porous  
material.

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7. The CMP process as claimed in claim 6,  
wherein  
the auxiliary layer (4) is used in conjunction  
with a CARL resist as bottom resist.